What is claimed is:

1. A composition comprising a recombinant adeno-associated virus vector comprising at least two adeno-associated virus inverted terminal repeats, a promoter/regulatory sequence, isolated DNA encoding Factor IX and accompanying 5' and 3' untranslated regions and a transcription termination signal.

2. The composition of claim 1, further comprising a portion of intron I of a Factor IX gene.

3. The composition of claim 2, wherein said portion of intron I of a Factor IX gene is from about 0.3 kb to about 1.7 kb in length.

4. The composition of claim 1, wherein said isolated DNA encoding Factor IX comprises a mutation which renders Factor IX encoded thereby incapable of binding to collagen IV.

5. The composition of claim 4, wherein said mutation in said mutated DNA encodes an alanine residue in place of lysine in the fifth amino acid position from the beginning of mature F.IX.

6. The composition of claim 1 further comprising a pharmaceutically acceptable carrier.

7. The composition of claim 1, wherein said promoter/regulatory sequence is selected from the group consisting of the cytomegalovirus immediate early promoter/enhancer, the skeletal muscle actin promoter and the muscle creatine kinase promoter/enhancer.

8. The composition of claim 1, wherein said transcription termination signal is the SV40 transcription termination signal.

9. A kit including the vector of claim 1, and instructions for using said kit.

10. A method of treating hemophilia in a mammal comprising administering to a muscle tissue of said mammal a composition comprising a recombinant adeno-associated virus vector comprising at least two adeno-associated virus inverted terminal repeats, a promoter/regulatory sequence, isolated DNA encoding Factor IX and accompanying 5' and 3' untranslated regions and a transcription termination signal, and a pharmaceutically acceptable carrier.

11. The method of claim 10, wherein said recombinant adeno-associated virus vector is administered by injecting said composition into at least two sites in said muscle tissue.

12. The method of claim 11, wherein said recombinant adeno-associated virus vector is administered by injecting said composition into at least six sites in said muscle tissue.

13. The method of claim 10, wherein said recombinant adeno-virus vector is administered at a dose of between about 1×10^8 to about 5×10^{15} viral vector genomes per mammal.

14. The method of claim 10, wherein said mammal is a human and said Factor IX is human Factor IX.

15. The method of claim 10, wherein said promoter/regulatory sequence is selected from the group consisting of the cytomegalovirus immediate early

promoter/enhancer, the skeletal muscle actin promoter and the muscle creatine kinase promoter/enhancer.

16. The method of claim 10, wherein said composition further comprises a portion of intron I of a Factor IX gene.

17. The method of claim 16, wherein said portion of intron I of a Factor IX gene is from about 0.3 kb to about 1.7 kb.

18. The method claim 10, wherein said isolated DNA encoding Factor IX comprises a mutation which renders Factor IX encoded thereby incapable of binding to collagen IV.

19. The method of claim 18, wherein said mutation in said mutated DNA encodes an alanine residue in place of lysine in the fifth amino acid position from the beginning of mature F.IX.

20. The method of claim 10, wherein said mammal is a human.